Nelson, Heindel, and Noyes

• Consulting Hydrogeologists
• Engineers
• Environmental Scientists

P.O. Box 64709 Burlington, Vermont 05406-4709 802-658-0820
FAX: 802-860-1014

November 8, 1996

Mr. Michael B. Morissette
Hazardous Materials and Waste Coordinator
Vermont Agency of Transportation
133 State Street
Montpelier, Vermont 05633

Re: Vermont Agency of Transportation

Dear Mike:

Please find attached three copies of our report on the Former District #2 Maintenance Garage, Brattleboro, Vermont.

If you have any questions or comments, please do not hesitate to call.

Best regards,

Jeffrey E. Noyes
Chief Hydrogeologist

JEN/jb

Attachment

[U:\AMCBEAN\WPDOCS\MORRISET.L3]

VERMONT AGENCY OF TRANSPORTATION

FORMER DISTRICT #2 MAINTENANCE GARAGE
BRATTLEBORO, VERMONT

November 7, 1996

NELSON, HEINDEL, AND NOYES NH&N

Consulting Hydrogeologists, Engineers, and Environmental Scientists

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VERMONT AGENCY OF TRANSPORTATION

FORMER DISTRICT #2 MAINTENANCE GARAGE
Brattleboro, Vermont

Prepared by:

Nelson, Heindel, and Noyes

Prepared for:

November 7, 1996

VERMONT AGENCY OF TRANSPORTATION

FORMER DISTRICT #2 MAINTENANCE GARAGE
Brattelboro, Vermont

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VERMONT AGENCY OF TRANSPORTATION

FORMER DISTRICT #2 MAINTENANCE GARAGE
Brattleboro, Vermont

1.0 INTRODUCTION

In 1989 Mr. Michael Lacroix purchased the District #2 Maintenance Garage in Brattleboro, Vermont. At the time of the sale the Agency of Transportation (AOT) had cleaned up visible surface contamination, removed all unused underground storage tanks, and cleared the site of all solid waste.

In July of 1994, the Merchants Bank initiated a Phase II site assessment of this property to determine the status of soil and groundwater contamination at the site. This work was carried out under the direction of the Johnson Company (consultant). The consultant's report dated July 29,1994 details the levels of soil and groundwater contamination found at that time. In a letter dated August 1, 1994 to Mr. George Desch, Chief Sites Management Section, Vermont Agency of Natural Resources, the Merchants Bank states that the "possibility of contamination was known to the State" prior to the sale of the property to Mr. Michael Lacroix in 1989. The Sites Management Section evaluated the consultant's report and determined that the presence of Tetrachloroethene (PCE) in monitoring well MW-11 (Appendix 1, page 1) was their primary concern. Sites Management then requested that the AOT conduct their own site investigation to further define the distribution of PCE on the site. This report summarizes the results of the AOT investigation conducted during July of 1996.

2.0 SITE DESCRIPTION AND BACKGROUND

2.1 Site Location and Physiography

The site is located in Brattleboro, Vermont, west of Route 5 and approximately 0.5 miles north of the confluence of the West and Connecticut Rivers (Appendix 1, page 2). The site is atop a steep sided terrace overlooking the West River. The soils consist of post-glacial fluvial sand deposits overlying varved lacustrine deposits (Appendix 1, page 3 and 4). The site has been filled to level the property to the west. Bedrock underlying the site consists of slate and phyllites of the Devonian Littleton Formation (Appendix 1, pages 5 and 6).

2.2 Existing Environmental Threats

Route 5 between the intersection with Route 9 north of the site and the West River bridge south of the site is dominated by retail and service oriented industry (see Local Threat Map, Appendix 1, page 7). A portion of the site was a Ford garage from the 1940's until 1960 and there have been auto dealerships located on both sides of the site as well. There is an existing gas station northeast of the site and another gas station was formerly located across from the site just east of Route 5. Currently the site is being used for an equipment rental business, a quick lube shop, a redemption center and storage for heating/refrigeration and electrical contractors. The owner of the property also uses one of the garages for boat restoration work. There is a car wash just south of the property which has been in operation for at least 25 years.

The steep bank on the west side of the property shows evidence of active dumping of petroleum products. Just west of MW-17 approximately 20 square feet of vegetation was dead at the time of drilling and a petroleum odor was evident. Another site visit in early August revealed paint films on vegetation in the vicinity of MW-19 which had not been there at the time the well was installed.

2.3 Site History

The Agency of Transportation purchased the Brattleboro Garage property in three parcels between October, 1931 and March, 1960. The first buildings purchased were those at the north end of the property and the last was building #2. When

building #2 was purchased in 1960 it had been occupied by a Ford garage/dealership since the 1940's. The Agency of Transportation used the site for routine maintenance of vehicles and storage of materials used for roadway maintenance until Mr. Michael Lacroix purchased the property in 1989.

In June of 1987 borings were completed in the vicinity of Building #3 (old salt shed) in an area of visible surface contamination. The area had been used as the site for a portable asphalt batch plant and petroleum products associated with the operation had been spilled in the area. Kerosene and fuel oil are typically used to cutback or thin the asphalt and these were the suspected pollutants. Ten borings were completed in the area ranging in depth from 5 to 15 feet. Borings located at the front doors to the salt shed were the only ones yielding any reading on a Photovac photoionization detector (PID), ranging from 2.9 to 9.9 ppm. A recommendation was made to excavate and polyencapsulate the contaminated material. This investigation is detailed in a June 19, 1987 memo to Thomas Viall, Assistant Attorney General, from Bob Morrill, Chairman Hazardous Waste Task Force for the AOT, Dept. of Motor Vehicles. A second memo dated August 5, 1987 from Frank Aldrich, District Transportation Administrator to Donald Remick, Director of Maintenance indicates 10 to 12 cubic yards of contaminated soil were removed and polyencapsulated.

At the time of the sale in 1989, the Agency pulled all underground storage tanks which were not in use. The fire department was on site at the time and no free product was noted in any of their excavations. Monitoring wells placed in the vicinity of the old tanks by the previous consultant did indicate some residual contamination at these sites.

3.0 METHODS OF INVESTIGATION

The objective of the subsurface investigation was to determine the source and extent of PCE contamination. The investigation included soil borings and monitoring well installation, sampling and laboratory characterization of groundwater and a site survey. Each activity is detailed below.

3.1 Monitoring well Installation

Seven monitoring wells were installed to determine water quality in the vicinity of MW -11, the site of PCE contamination previously reported. Monitoring wells 15 through 19 were placed using 8 inch hollow stem augers (HSA) and wells MW-20 and MW-21 were placed with a hand auger. Monitoring well MW-15 was placed upgradient at the eastern property line to determine water quality entering the property. Well MW-16 was placed upgradient of MW-11 but down gradient of building #2, a possible source of the PCE. Three wells, MW-17, 18 and 19 were placed downgradient of MW -11 to further define the contaminant plume and MW-20 and 21 were placed at the western edge of the property to determine water quality exiting the property. A groundwater contour map is included in Appendix 1, page 8. The monitoring well construction diagrams are included in Appendix 2, pages 1-5.

3.2 Soil Screening and Sampling

Split spoon samples were taken at five foot intervals during the installation of monitoring wells MW-15 through MW-19 and composite samples were taken off the auger flights for MW-20 and MW-21. The samples were placed in plastic bags, sealed and allowed to equilibrate prior to head space sampling with an H-Nu Systems, Inc., Model PI 101 photoionization detector (PID) equipped with a 10.2 eV UV lamp. The PID was calibrated each day with a 100 ppm isobutylene gas. Boring logs detailing soil parameters and the results of PID screening can be found in Appendix 2, pages 6-18.

3.3 Groundwater Sampling

Groundwater samples from all seven monitoring wells were sampled on August 1, 1996, submitted for analysis on August 2, 1996 by EPA method 8260 (VOC's) and analyzed on August 6, 1996. The results of the water testing can be found in Appendix 3 and are discussed in Section 4.3.

4.0 INVESTIGATION RESULTS

4.1 Site Stratigraphy

The soils encountered in the borings can be divided into four horizons. The uppermost layer varies in thickness from 3 to 14 feet and consists of sand with varying amounts of gravel. The material is loose to medium dense, moist and yellowish brown to light olive brown in color. It is generally poorly sorted and appears to be a mixture of native and fill materials. The next layer consists of a very dense, moist, yellowish brown to grayish orange gravel. It was encountered in every boring at depths from 3 to 14 feet and ranges in thickness from 3 to 6 feet. Below the gravel layer is a layer of sand and silt with traces of gravel. This unit is found at depths ranging from 9 to 17 feet and is 6 to 14 feet thick. The material consists of interbedded silt, sand and sand with traces of gravel. It is typically medium dense, light olive gray and varies from moist to wet. The higher moisture contents were seen in the coarsest sediments. Beginning at a depth of 19 to 23 feet, the last unit consists of varved sand and silt interbedded with thick units of well sorted, silt and sand. All borings terminate in this unit at depths of 62 to 65 feet. Layering in the varved zone ranges from 0.05 to 0.3 feet thick and is well defined by dark minerals and oxidized horizons. The thicker bedded units have only an occasional change in grain size to define the structure. The sediments as a whole are medium dense, moist to wet, and light olive gray in color.

The sequence indicates postglacial fluvial deposition over a lacustrine sequence of beach gravel and varved silt and sand. The uppermost fluvial unit has been altered by activities at the site including excavation for structures on the site as well as in filling with borrow to level other areas.

4.2 Hydrogeology

The groundwater contour map (Appendix 1, page 8) reveals a phreatic surface sloping to the west between MW-15 and MW-19. The apparent flow direction is approximately S80W with a hydraulic gradient of 0.02 ft/ft. It was not practical to include groundwater elevations from MW-20 and MW-21 in the survey due to poor access at their location.

4.3 Contaminant Distribution

During the soil boring program split spoon and composite samples were field screened with a PID. The results are included with the annotated soil boring logs in Appendix 2. Monitoring wells 17 and 19 revealed background VOC concentrations and MW-15, MW-16 and MW-18 had VOC levels slightly above background, ranging from 0.1 to 0.6 ppm. None of the samples field screened showed any abnormal discoloration or odor.

Monitoring wells MW-7, MW-11 and wells MW-15 through MW-21 were sampled for laboratory characterization of VOC's. At the time of this survey MW-2 was dry and MW-4 could not be located. Monitoring wells MW-20 and MW-21 yielded no detectable contamination. The laboratory analytical reports are presented in Appendix 3 and the results are compiled below in Table 1.

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS

Parameter	MW-7 (µg/L)	MW-11 (µg/L)	MW-15 (µg/L)	MW-16 (µg/L)	MW-17 (µg/L)	MW-18 (µg/L)	MW-19 (µg/L)	Enforce. Standard (µg/L)
Chloroform	ND	ND	ND	ND	ND	ND	TBQ	
1,1 Dichloroethene	TBQ	TBQ	ND	2.1	4.3	ND	TBQ	
Tetrachloroethene	ND	8.3	ND	11.7	23.0	3.7	8.2	0.7
1,1,1 Trichloroethane	30.7	8.5	ND	26.6	45.4	5.0	7.5	
Unidentified Peaks	0	0	0	0	0	0	0	-

1 Not detected
2 Trace below quantitation limit
3 No standard established

Chlorinated hydrocarbons were detected in wells MW-7, MW-11 and MW-16 through MW-19. There has been several historical uses of this property which may have involved the use of solvents and judging by the surface contamination seen during and after the current drilling program the contamination may be ongoing.

Vermont Groundwater Enforcement Standards for volatile organic compounds were exceeded in MW-16 through MW-19 for tetrachloroethene (PCE).

5.0 SENSITIVE RECEPTOR SURVEY

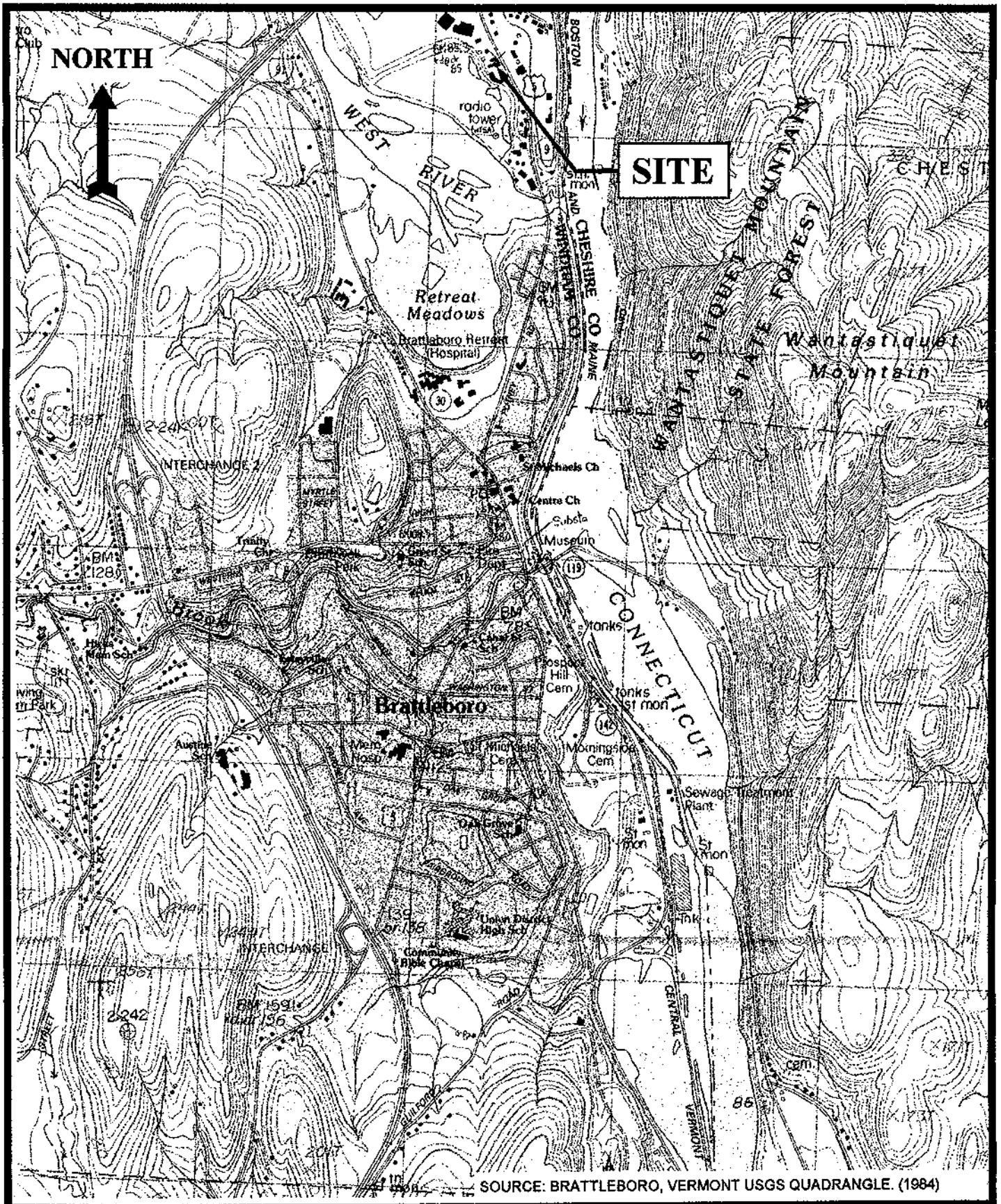
The contamination at this site has the potential to impact both human and environmental receptors. The primary route of human exposure would be contact with water in the West River west of the site. Since the contamination is not exposed at the ground surface and PID readings were relatively low it is unlikely that inhalation would be a significant exposure risk. Therefore dermal exposure through contact with the water or ingestion of fish impacted by the pollution would be the primary routes of exposure. Since no contamination was found downgradient from the site adjacent to fringe wetlands of the West River in wells MW-20 and MW-21, the risk of human exposure is considered negligible. The West River is the primary environmental receptor and does not appear to be impacted by pollution from this site.

6.0 CORRECTIVE ACTION

Surface and groundwater near this site are not relied upon for drinking water supplies. Therefore, even though Groundwater Standards for PCE are being exceeded, we do not believe corrective action is appropriate at this time. The contamination is limited in aerial extent and does not appear to extend outside the property lines.

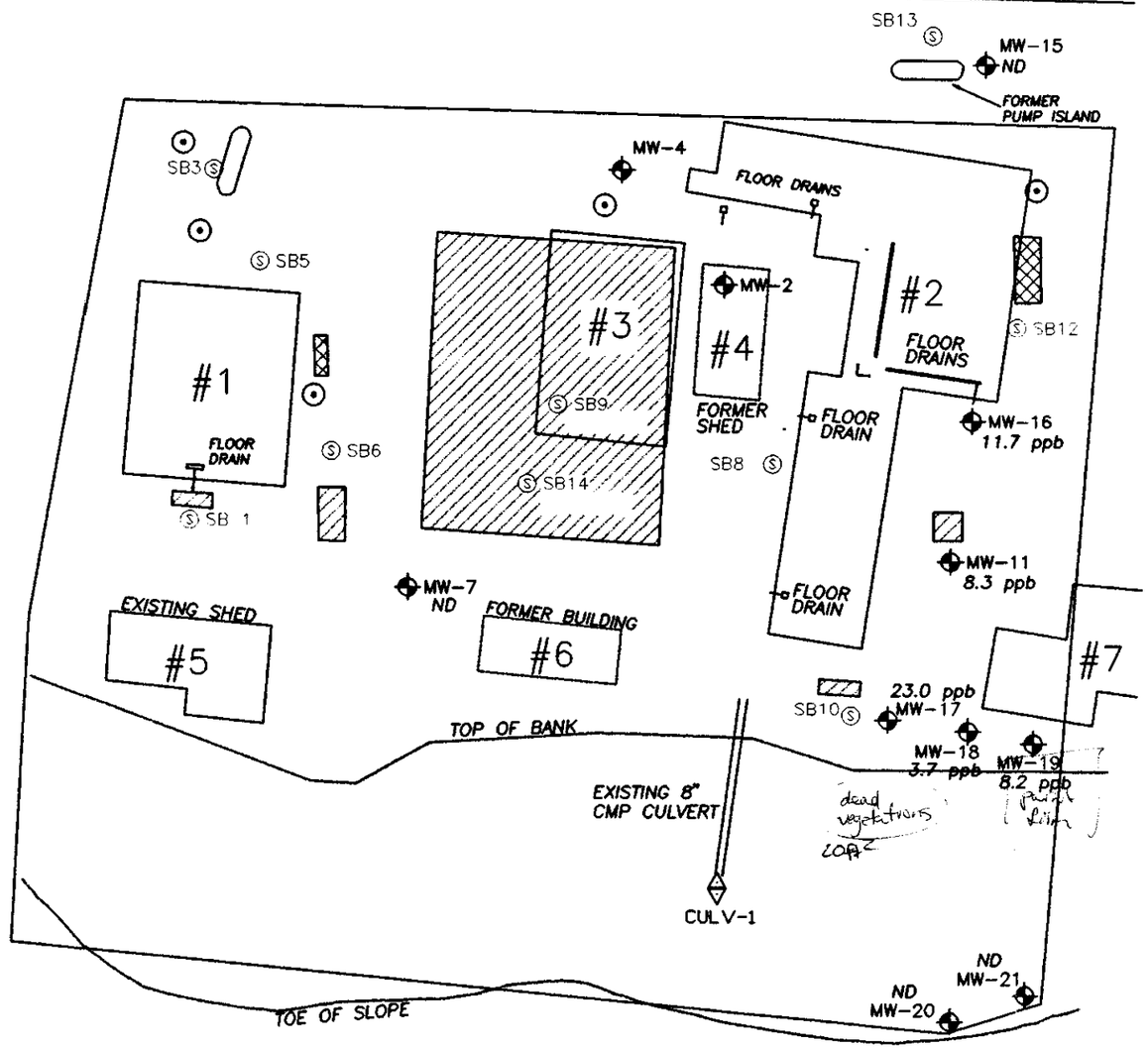
7.0 CONCLUSIONS

- Tetrachloroethene is present in the groundwater at this site in levels ranging from 3.7μg/L to 23.0 μg/L.
- The Vermont Groundwater Enforcement Standard for PCE is 0.7 μg/L.
- The source of the contamination appears to be Building #2 with the contamination spreading downgradient to the west from this point.
- Monitoring wells MW-20 and MW-21 indicate that the contamination is not impacting the West River and the associated fringe wetlands.



SOURCE: BRATTLEBORO, VERMONT USGS QUADRANGLE. (1984)

AOT/BRATTLEBORO GARAGE	DATE: OCTOBER 2, 1996	*Nelson, Heindel, and Noyes, Inc.*
BRATTLEBORO, VERMONT	PROJECT NO. 95302	• Hydrogeology • Ecology • • Environmental Engineering •
SITE LOCATION MAP	DRAWN BY: M. Luman	CONSULTING SCIENTISTS AND ENGINEERS
SCALE: 1:25000 / FILE: C:\AOTBRATT\SITEMAP	PROJ. MGR: A. McBean / APPROVED: J. Noyes	P.O. BOX 64709 – BURLINGTON, VERMONT 05406
		PREPARED BY: INFORMATION & VISUALIZATION SERVICES



SOURCES

STATE OF VERMONT "Plan of Former VT. District #2 Transportation Complex" JOHNSON COMPANY SITE INVESTIGATIONS 7/12/94 - 7/14/94, AND SITE WALK WITH LACROIX REGARDING PAST USES OF PROPERTY.

NOTES

1) ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE.
2) MONITORING WELL AND SOIL BORING LOCATIONS WERE DETERMINED RELATIVE TO BUILDING CORNERS BY THE JOHNSON COMPANY.
3) AUTOLEVEL SURVEY CONDUCTED BY THE JOHNSON COMPANY. VERTICAL ELEVATIONS BASED ON AN ARBITRARY DATUM. VERTICAL ACCURACY IS ± 0.3'.

HYDRAULIC GRADIENT :
FLOW DIRECTION :

LEGEND

- UNDERGROUND STORAGE TANK FILL PIPE
- MAGNETIC ANOMOLY
- POSSIBLE UST LOCATION
- SOIL SAMPLE LOCATION
- SB6 — SOIL BORING LOCATION
- 11.7 ppb — PCE TETRACHLOROETHENE READINGS (ppb)
- MW-7 — MONITORING WELL LOCATION 7/94
- MW-15 — MONITORING WELL LOCATION 7/96

Nelson, Heindel, and Noyes
• Hydrogeology • Ecology •
• Environmental Engineering •
CONSULTING SCIENTISTS AND ENGINEERS
P.O. BOX 64709
BURLINGTON, VERMONT 05406-4709
Prepared By:

DATE: NOVEMBER 1, 1996
PROJECT NO. 95302
DRAWN BY: C. Hardy
PROJ. MGR: A. McBean
APPROVED: J. Noyes

BRATTLEBORO GARAGE

BRATTLEBORO, VERMONT

DISTRIBUTION OF PCE

Surficial Geology of Area Surrounding Agency of Transportation, Former District II Maintanance Garage Brattleboro, VT

N

2500 0 2500 Feet

LEGEND ON FOLLOWING PAGE

INFORMATION & VISUALIZATION SERVICES

P.O. Box 64709 - Burlington, Vermont - 05406-4709 - Tel: (802) 865-0437 - Fax: (802) 860-1014 - Email: IVSBURL@AOL.COM

SURFACE GEOLOGY EXPLANATION

GLACIAL

T

TILL

Till mantling the bedrock and reflecting the topography of the underlying bedrock surface. Thicker in the valleys and thinner on the uplands. On many exposed uplands, postglacial erosion has left only rubble and scattered boulders on the bedrock.

MORAINE

Ice marginal till accumulations with morainic topography.
M- frontal moraine assumed to be recessional.
TM- terminal moraine.

K

KAME GRAVEL

Ice contact outwash gravel.
K- isolated kame.
KT- kame terrace.
KM- kame moraine, kame complex with morainic topography.

OUTWASH

Horizontally bedded glaciofluvial gravel. Spillway or valley train gravel in stream valleys. Silty or icky soil have a thin veneer of postglacial alluvium.

E

ESKER

A sinuous ridge of constructional form, consisting of stratified accumulations, of glacial sand and gravel.

EOLIAN

ES

EOLIAN SAND AND DUNES

Deposits of sand arranged by the wind.

GLACIOLACUSTRINE

LITTORAL SEDIMENT
PREDOMINANTLY GRAVEL

LG- horizontally bedded gravel deposited in a shoaling lake or topset beds of deltaic gravel where no foreset bedding is exposed.
BG- beach gravel.
DG- delta gravel showing foreset bedding.
D- small deltas composed of sand and gravel.

PS BS DS

LITTORAL SEDIMENT
PREDOMINANTLY SAND

LS-well sorted sand, no pebbles or boulders.
PS- pebbly sand.
BS- sand containing ice rafted boulders.
DS- delta sand.

STC VC BC

LAKE BOTTOM SEDIMENTS

STC- silt, silty clay, and clay.
VC- varved clay.
BC- silt, silty clay, and/or clay containing ice rafted boulders.

WAVE-WASHED TILL

Till from the top of which the finer materials have been removed by wave action, leaving boulder concentrations on the surface.

BEACH RIDGE

A linear accumulation of beach material, behind the beach which was created from waves or other action.

POSTGLACIAL FLUVIAL

FLUVIAL GRAVEL

Gravel laid down by a river or a stream.

FLUVIAL SAND

Sand laid down by a river or a stream.

AL

RECENT ALLUVIUM

Accumulations of detrital materials, which have been eroded, transported, and deposited by streams.

CHAMPLAIN SEA

MSG

MARINE BEACH GRAVEL

MS PSM

MARINE SAND

MS- marine sand without pebbles or boulders.
PSM- pebbly marine sand.

MARINE CLAY

GB

GRAVEL BAR

A natural mound or exposed face of gravel.

PLUVIAL

SWAMP, PEAT and/or MUCK

BEDROCK EXPOSURES

Solid filled bedrock was taken directly from the state source maps.
Hatch filled bedrock represents generalized contactless with a 25m buffer.

SOURCE NOTES:
Surface Geology was digitized and scanned, by Wagner, Heindel, and Noyes, into a PC ARC/INFO database from 1:62500 original State of Vermont surficial geology base maps (1956-1966).
These base maps were created under the supervision of David P. Stewart (1956-1968), Paul MacClintock (1963-1966), William F. Cannon (1964), G. Gordon Connally (1965), Parker E. Calkin (1965), Robert E. Behling (1966), and William W. Shilts (1966). Surficial data for most of the state is available, in 15 minute quads, from WHN (802) 658-0820.
Generalized Bedrock Outcrops were digitized from 1:62500 state surficial geology maps as linear features, which were buffered to 25m. Data available from WHN with surficial geology coverages.
Road Centerlines were generated from pre-1990 1:5000 orthophotos (or better). Road data (RDSmn) is available from the Vermont Center for Geographic Information, VCGI (802) 656-4277.
Linear Surface Waters are Digital Line Graph Data, generated from 1:24,000 USGS topographic maps. This data is available from VGIS.
Town Boundaries were digitized from pre-1990 1:24000 USGS topographic maps. This coverage was created by the EPA and is available through VGIS.

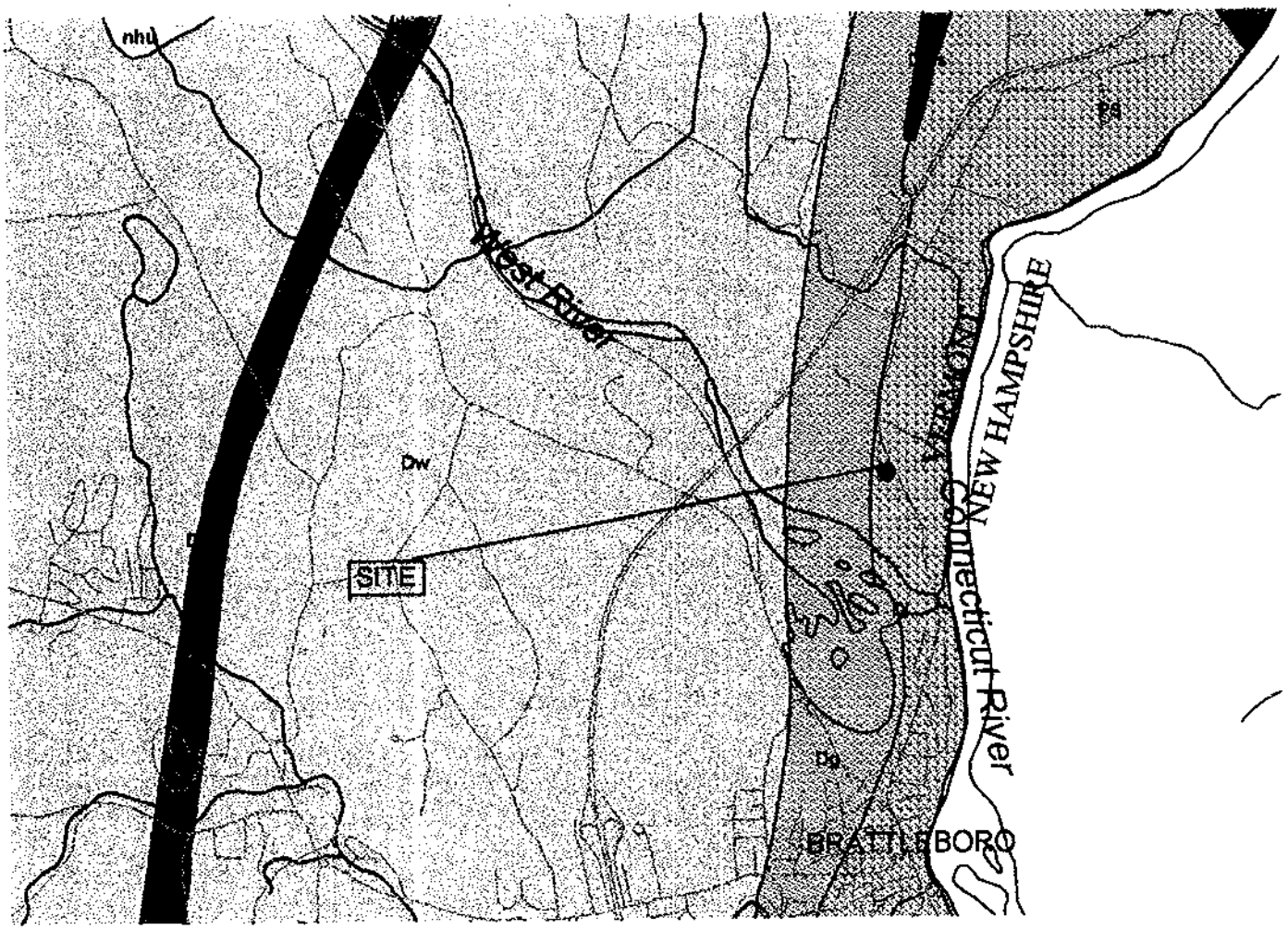
Legend derived from 1:250,000 Surficial Geologic Map of Vermont (1970).

REVISION HISTORY:
Original Production - January 1995

H
W N

WAGNER, HEINDEL, & NOYES, INC.
CONSULTING HYDROGEOLOGISTS, ENGINEERS, AND ENVIRONMENTAL SCIENTISTS

Bedrock Geology of Area Surrounding Agency of Transportation, Former District II Maintanance Garage Brattleboro, VT



N

2300 0 2300 Feet

LEGEND ON FOLLOWING PAGE

INFORMATION & VISUALIZATION SERVICES

P.O. Box 64709 - Burlington, Vermont - 05406-4709 - Tel: (802) 865-0437 - Fax: (802) 860-1014 - Email: IVSBURL@AOL.COM

BEDROCK GEOLOGY LEGEND

Road Centerline
Town Boudary

No Label
Features with no label were not attributed on the original source maps.

Surface Water

Topographic Contours

100 Foot Intervals
500 Feet Above Sea Level
1000 Feet Above Sea Level
1500 Feet Above Sea Level
2000 Feet Above Sea Level
2500 Feet Above Sea Level
3000 Feet Above Sea Level
3500 Feet Above Sea Level
4000 Feet Above Sea Level

Faults

Thrust Fault; Upper Plate to West
Thurst Fault; Upper Plate to East
Uncertain Thrust Fault; Upper Plate to West
Uncertain Thurst Fault; Upper Plate to East
Reverse Fault; Upthrown Side to West
Reverse Fault; Upthrown Side to East
Reverse Fault; Location Uncertain
Normal Fault; Downthrown Side to West
Normal Fault; Downthrown Side to East
Normal Fault; Location Uncertain

PLUTONIC ROCKS

PERMIAN OR TRIASSIC
White Mountain Plutonic-Volcanic Series

wle
Bostonite - Many small leucophyres and lamprophyres not shown.

wg
Biotite and hornblende granites

ws
Hornblende, biotite, quartz and augite syenites

Nepheline syenite and pulaskite

wd
Hornblende-biotite diorite; gabbro

we
Essexite

wv
Volcanic breccia, felsitic tuff, and flows

DEVONIAN
New Hampshire Plutonic Series

Bethlehem Gneiss - Two-mica granodiorite gneiss

nhu
Undifferentiated granitic rocks
Small dikes and sills do not show.

nhd
Metadiorite - Metagabbro, metadiabase and meta-adesite, too small to show are chiefly in the Missisquoi, Albee and Orfordville formations.

Oliverian Plutonic Series

Biotite quartz and diorite gneiss

ORDOVICIAN
Highlandcroft Plutonic Series

hu
Undifferentiated granitic rocks

udp us uu
Ultramafic rocks
udp - dunite, peridotite and serpentinite.
us - serpentinite, carbonate rock, talc-carbonate rock and steatite.
uu - undifferentiated ultramafic rocks.

CAMBRIAN ROCKS

Cbh
Bridgeman Hill Formation
Undifferentiated dolomite, slate and conglomerate.

Cbr Cbrc
Brezee formation
Cbr - phyllite with beds of dolomite, marble, sandstone; beds of massive dolomite locally.
Cbrc - quartzose green phyllite.

Cheshire Quartzite

?Ccr ?Ccg
Cavendish Formation
?Ccr - Readsboro Member: quartz-muscovite-schist.
?Ccg - Bull Hill Gneiss: quartz-plagioclase-microline-biotite gneiss.
?Ccm - buff dolomite.

Ccs
Clarendon Springs, Ticonderoga, and Rock River Dolomites; Gorge Formation

Cd
Dunham Dolomite

Cds
Danby and Potsdam Formations
Interbedded quartzite and dolomite.

Cdl
Dalton Formation
Schistose quartzite, impure dolomite, and conglomerate.

Forestdale Marble

Ch Chr Chm Chg
Hazens Notch Formation
Ch - interbedded carbonaceous and noncarbonaceous schist.
Chb - Belvidere Mountain Amphibolite Member
Chm - schist.
Chg - greenstone.

Cho Chop Cht Chog
Hoosac Formation
Cho - quartz-sericite schist
Chop - Plymouth Member: quartzite and carbonaceous phyllite.
Cht - Turkey Mountain Member: amphibolite and greenstone.
Chog - amphibolite and greenstone.

Chw
The Hatch Hill and West Castleton Formations
Hatch Hill - calcareous quartzite.
West Castleton - silicous, carbonaceous slate.

Cmk
Monkton Quartzite

Cmo
Moosalamoo Phyllite

Cc Ccg
Ottauquechee Formation
Carbonaceous phyllite or schist containing beds of massive quartzite.

Cp Cpt
Pinnacle Formation
Cp - schistose greywacke.
Cpg - Tibbit Hill Volcanic Member

Cpa
Parker Slate

Cph Cpgc Cpg Cpc
Pinney Hollow Formation
Cph - Pale green phyllite with abundant magnetite.
Cpgc - Chester Amphibolite Member.
Cpg - greenstone and actinolitic greenstone.
Cpc - carbonaceous phyllite and schist.

Rugg Brook Formation
Dolomite, conglomerate, and sandstone.

Csh Csh Csm
Sweetsburg Formation
Cs - carbonaceous slate.
Csh - Hungerford Slate Member
Csr - Rockledge Conglomerate Member.
Cssm - Skeels Corner Slate and Mill River Conglomerate members undifferentiated.
Csa - St. Albans Slate Member.

Saxe Brook Dolomite

Csc Csh Cscz
St. Catherine formation
Csc - slate and phyllite.
Csch - Bomoseen Greywacke Member.
Cscz - Zion Hill Member: quartzite and greywacke.

Tyson Formation
Schist, conglomerate at base, phyllite and dolomite in upper portion.

Cutp Cut Cub
Cug Cuf Cuh
Cuc Cufb
Cuw Cua
Underhill Formation
Cu - grey-green schist.
Cutp - Fairfield Pond Member: quartzitic schist.
Cug - greenstone.
Cuc - carbonaceous schist and phyllite.
Cuw - White Brook Member: sandy dolomite with crystalline limestone.
Cuf - Forestdale Member: sandy dolomite and limestone.
Cuj - Jay Peak Member: schist, locally quartzitic.
Cufb - Foot Brook Member: schist, minor carbonaceous interbeds.
Cua - Mount Abraham Schist Member.
Cub - Batteli Member: carbonaceous schist and schistose quartzite.
Cup - Peaked Mountain Member: greenstone.

Cw
Winooski Dolomite

ORDOVICIAN ROCKS

OCs OCc OCsg
Stowe Formation
OCs - phyllite and schist.
OCsc - carbonaceous schist and phyllite.
OCsg - greenstone and amphibolite.

OCu
Pinney Hollow, Ottauquechee, and Stowe Formations, undifferentiated
Quartz schist, carbonaceous schist, and schistose quartzite.

Oa
Ammonoosuc Volcanics

Oal
Albee Formation
Quartzite interbedded with slate and phyllite.

Ob Obb
Bascom Formation, and undifferentiated Luke Hill, Naylor Ledge and Hastings Creek Limestones
Ob - interbedded dolomite, limestone or marble, sandstone, quartzite and limestone breccia.
Obb - Brownell Mountain Phyllite Member.

Cutting dolomite, and undifferentiated Morgan Corner and Wallace Creek Formations

Ocbr Ocbr Ocw
Chipman, Bridport, and Beldens Formations; Providence Island Dolomite
Ocbr - Bridport Dolomite Member.
Ocbe - Beldens Member: dolomite with limestone and marble scoring.
Ocw - Weybridge Member: limestone.
Ocb - Burchards Member: limestone with spots of dolomite.

Ocm
Cumberland Head Formation
Interbedded shale and limestone.

Ogo
Glens Falls and Orwell Limestones, undifferentiated

Ogs Ogl
Glens Falls Formation
Highly fossiliferous limestone.

Oh
Hortonville Formation
Pyritic slate and phyllite with limy beds.

Oha
Hathaway Formation
Argillite and bedded radiolarian chert.

Ohg
Hortonville, or Cumberland Head, and Glens Falls Formations, undifferentiated

Oi
Iberville Formation
Noncalcareous black shale interbedded with dolomite.

Ohi
Highgate Formation
Banded limestone and calcareous slate.

Missisquoi Formation
NORTHERN VERMONT
Omvcr Omhb Omc
SOUTHERN VERMONT
Omc Omb Omv
STATEWIDE
Omm
Omcr - Cram Hill Member: phyllite, grades locally to dark slate.
Omhb - Harlow Bridge Quartzite Member.
Omco - Coburn Hill Volcanic Member: greenstone and amphibolite, includes pillow lavas.
Omc - carbonaceous phyllite and slate.
Omu - Umberella Hill Member: quartz and slate pebble conglomerate.
Omc - carbonaceous mica schist, quartzite and micaceous quartzite.
Omb - Barnard Volcanic Member: gneiss and amphibolite.
Omw - Whetstone Hill Member: carbonaceous phyllite and schist.
Omm - Moretown Member: quartzite and quartz-plagioclase granulite.

Omh
Mount Hamilton Formation
Hard slates, some interbedded with quartzites and chert.

Omlv Omlc Omlf
Middlebury and Chazy Limestones; undifferentiated Youngman and Carman Formations
Oml - Somewhat nodular and granular limestone with dolomite and shaly interbeds.
Omlv - Velcour Member: dark gray calcarenite succeeded by coquinal limestone.
Omlc - Crown Point Member: fossiliferous limestone.
Omld - Day Point Member: calcareous quartz sandstone and calcarenite.

Omlt
Morses Line Formation
Calcareous and noncalcareous slate, locally with limestone interbeds.

Oor
Orwell Limestone, and Isle La Motte and Lowville Limestones

Obl Oas Oop
Ordville Formation
Obl - carbonaceous phyllite.
Oas - Sunday Mountain Volcanics: greenstone and schists.
Oop - Post Pond Volcanics: greenstone and schist.

Op Opv
Partridge Formation
Op - NE VT - black carbonaceous slate and phyllite with beds of rhyolite tuff. SE VT - carbonaceous mica schist.
Opv - volcanics: biotite gneiss and amphibolite.

Opa
Pawlet Formation
Locally carbonaceous and pyritiferous,micaceous slate.

Os
Shelburne, Whitehall, and Strites Pond Formations
Chiefly a white marble or limestone with gray dolomite limestone.

Osp
Stony Point Formation
Calcareous black shale grading upward into argillaceous limestone.

SILURIAN ROCKS

Sc
Clough Formation
NE VT - conglomerate with cobbles of quartzite and schist, quartzite and schist matrix.
SE VT - quartzite, quartz-conglomerate and mica schist.

Fitch Formation
NE VT - weathered, sandy limestone.
SE VT - granulite, impure limestone and dolomite, and mica schist.

Shaw Mountain Formation
N VT - quartzose limestone and calcareous quartzite.
S VT - quartzite, quartz conglomerate, conglomerate schist, amphibolite and schist.

DEVONIAN ROCKS

DSn
Northfield Formation
Quartz-sericite slate of phyllite with siltstone and limestone interbeds.

Dg Dgh Dga Dgm
Gile Mountain Formation
Dg - quartz-muscovite phyllite or schist.
Dgh - Hall Stream Member: feldspathic grit, probably volcanic, schist and amphibolite.
Dga - amphibolite.
Dgm - Meetinghouse Slate Member.

Dl
Littleton Formation
Gray shale and phyllite with interbeds of schistose quartzite.

Dw Dwc Dwb
Waits River Formation
Dw - quartzose and micaceous crystalline limestone.
Dws - Standing Pond Volcanic Member: amphibolite and garnet schist.
Dwc - Crow Hill Member: tough gray quartzite of St. Albans region.
Dwb - Barton River Member: interbedded limestone and phyllite; diopside.
Dwa - Ayers Cliff Limestone Member.

PRECAMBRIAN ROCKS

pC pCsq pCmh
Mount Holly Complex
pC - biotitic gneiss, and in western areas chloritic.
pCsq - quartzite, micaceous quartzite, and quartz-mica schist.
pCm - calcite and dolomite marbles.

pCg
Undifferentiated gneissic biotite granite, quartz monzonite, and granodiorite

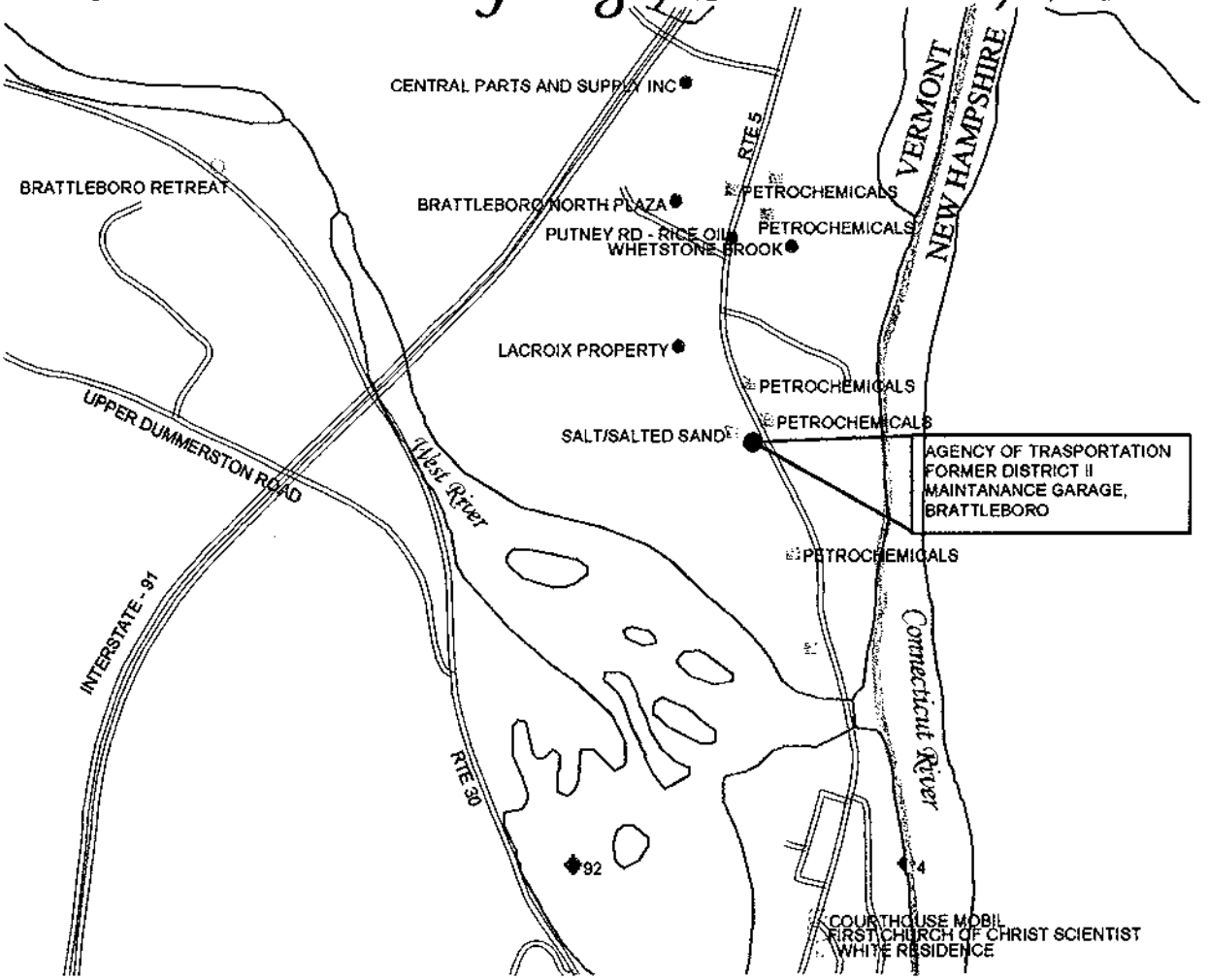
pCgn
Gneiss, quartzite, calc-silicate granulite

pCsg
Stamford Gneiss
Granitic biotite gneiss with megacrysts of microcline.

SOURCE NOTES:
Bedrock Geology was digitized and scanned, by Wagner, Heindel, and Noyes, into a PC ARC/INFO database from 1:62500 original State of Vermont bedrock geology base maps (1956-1966).
These maps were made available by Dr. Barry Doolan, Geology Department Chairperson, University of Vermont. Bedrock data for most of the state is available, in 15 minute quads, from IVS (802) 865-0437.
Road Centerlines were generated from pre-1990 1:5000 orthophotos (or better). Road data (RDSnn) is available from the Vermont Center for Geographic Information, VCGI (802) 656-4277.
Linear Surface Waters are Digital Line Graph Data, generated from 1:24,000 USGS topographic maps. This data is available from VGIS.
Town Boundaries were digitized from pre-1990 1:24000 USGS topographic maps. This coverage was created by the EPA and is available through VGIS.

INFORMATION & VISUALIZATION SERVICES
P.O. Box 64709 - Burlington, Vermont - 05406-4709 - Tel: (802) 865-0437 - Fax: (802) 860-1014 - Email: IVSBURL@AOL.COM

Environmental Hazards and Locations With Test Data Surrounding Agency of Transportation, Former District II Maintanance Garage, Brattleboro, VT



- STATE DESIGNATED HAZARDOUS WASTE SITE. (Last updated 7/96, next update 10/96)
- OLD STATE DESIGNATED HAZADOUS WASTE SITE. (No longer on the State HWS List as of 7/96)
- UNDERGROUND STORAGE TANK (On the 7/96 State UST List, all sites are not located)
- SITE SPECIFIC DATA AVAILABLE. (Last updated 7-15-96, next update 10-1-96) NOT NECESSARILY INDICATIVE OF AN ENVIRONMENTAL HAZARD.
- POTENTIAL SOURCE OF GROUNDWATER POLLUTION. (1980) (IE. LANDFILL, INDUSTRIAL WASTE, FARMING, SALT, JUNK YARD, ETC.)

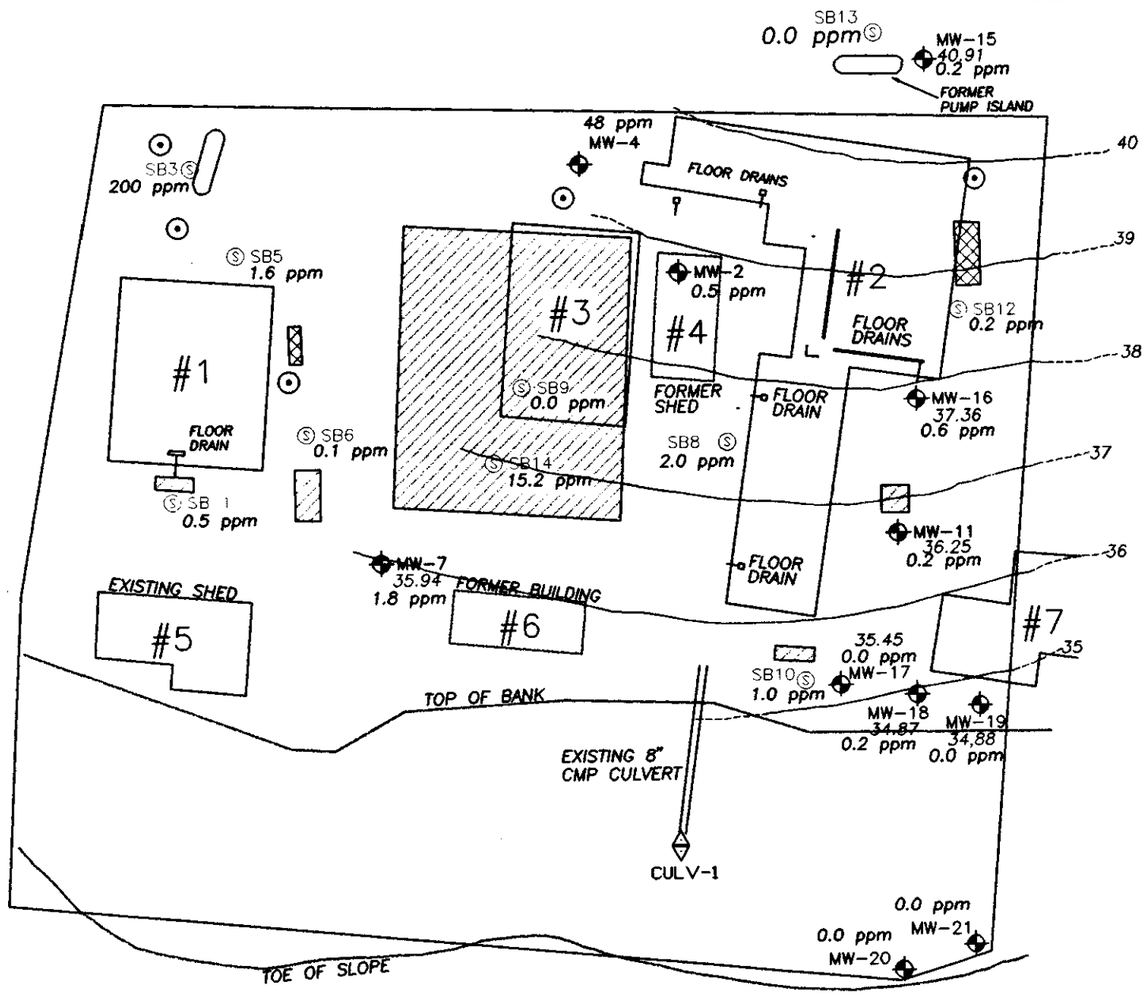
NOTE
TEST DATA SITES INDICATE INVESTIGATIONS OF AN ECOLOGICAL, GEOLOGICAL, OR PLANNING NATURE

MOST FEATURES ACCURATE +/- 150'

INFORMATION & VISUALIZATION SERVICES

1000 0 1000 Feet

P.O. Box 84709 - Burlington, Vermont - 05406-4709 - Tel: (802) 865-0437 - Fax: (802) 860-1014 - Email: IVSBURL@AOL.COM



SOURCES

STATE OF VERMONT "Plan of Former VT. District #2 Transportation Complex"
JOHNSON COMPANY SITE INVESTIGATIONS 7/12/94 - 7/14/94, AND
SITE WALK WITH LACROIX REGARDING PAST USES OF PROPERTY.

NOTES

1) ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE.
2) MONITORING WELL AND SOIL BORING LOCATIONS WERE DETERMINED RELATIVE TO BUILDING CORNERS BY THE JOHNSON COMPANY.
3) AUTOLEVEL SURVEY CONDUCTED BY THE JOHNSON COMPANY. VERTICAL ELEVATIONS BASED ON AN ARBITRARY DATUM. VERTICAL ACCURACY IS ± 0.3'.

HYDRAULIC GRADIENT : 0.023 FT/FT
FLOW DIRECTION : S80W

MONITOR WELL	T.O.C.	D.T.G.W.	ELEV. G.W. (8/1/96)
MW-7	93.36	57.42	35.94
MW-11	90.03	53.78	36.25
MW-15	90.21	49.30	40.91
MW-16	90.54	53.18	37.36
MW-17	89.84	54.39	35.45
MW-18	89.62	54.75	34.87
MW-19	93.52	58.64	34.88

LEGEND

- ⊙ UNDERGROUND STORAGE TANK FILL PIPE
- MAGNETIC ANOMOLY
- POSSIBLE UST LOCATION
- SOIL SAMPLE LOCATION
- Ⓢ SB6 SOIL BORING LOCATION
- 1.0 ppm MAX PID READING FOR SOIL BORING/ MONITORING WELL LOCATION
- MW-7 MONITORING WELL LOCATION 7/94
- MW-15 MONITORING WELL LOCATION 7/96
- 38 GROUNDWATER CONTOUR IN FEET

Nelson, Heindel, and Noyes
• Hydrogeology • Ecology •
• Environmental Engineering •
CONSULTING SCIENTISTS AND ENGINEERS
P.O. BOX 64709
BURLINGTON, VERMONT 05406-4709
Prepared By:
Information & Visualization Services

DATE: NOVEMBER 1, 1996
PROJECT NO. 95302
DRAWN BY: C. Hardy
PROJ. MGR: A. McBean
APPROVED: J. Noyes
☒ DRAFT ☐ FINAL

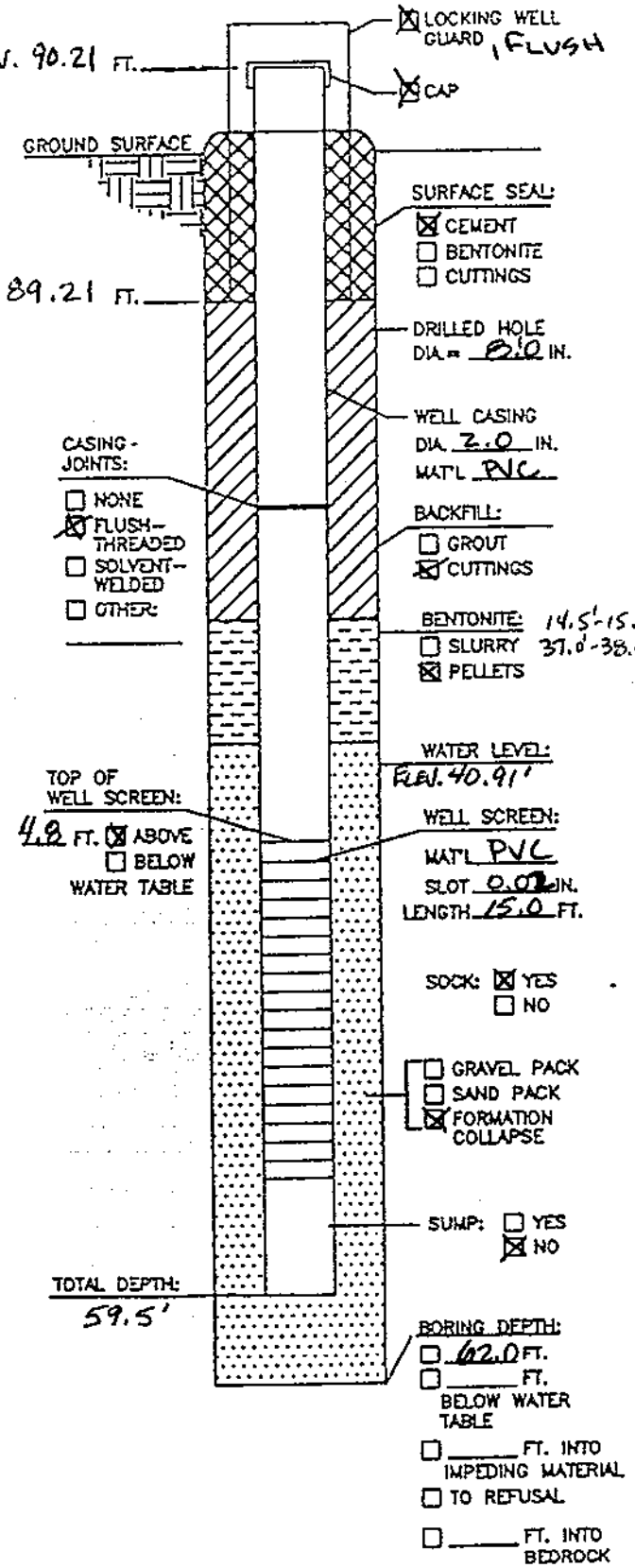
BRATTLEBORO GARAGE
BRATTLEBORO, VERMONT

GROUNDWATER CONTOUR MAP

SCALE: 1"=60'
FILE: C:\BRATTLEB\SITEPLAN

WELL CONSTRUCTION LOG

WAGNER, HEINDEL, and NOYES, INC.
BURLINGTON, VERMONT



PROJECT AOT - BRATTLEBORO GARAGE

WELL # MW-15

JOB # 95302

TOWN/CITY/STATE BRATTLEBORO, VT

INSTALLATION DATE(S) 07-08-96

DRILLING METHOD HOLLOW STEM AUGER

DRILLING FLUID TYPE _____ VOLUME _____

DRILLING CONTRACTOR AOT

WELL DEVELOPED? ☒ YES ☐ NO

IF YES, THEN VOLUME RECOVERED IS 5.0 GAL

IF YES, BY WHOM? KAD / JW

DATE: 8/1/96

STATIC DEPTH TO WATER 49.30 FT. BELOW TOP OF CASING

☒ MEASURED ☐ ESTIMATED ON DATE: 8/1/96

SPLIT-SPOON SAMPLES? ☒ YES ☐ NO

IF YES, THEN INTERVAL IS 5' FT. OR ☐ CONTINUOUS

WELL PURPOSE MONITOR GROUNDWATER

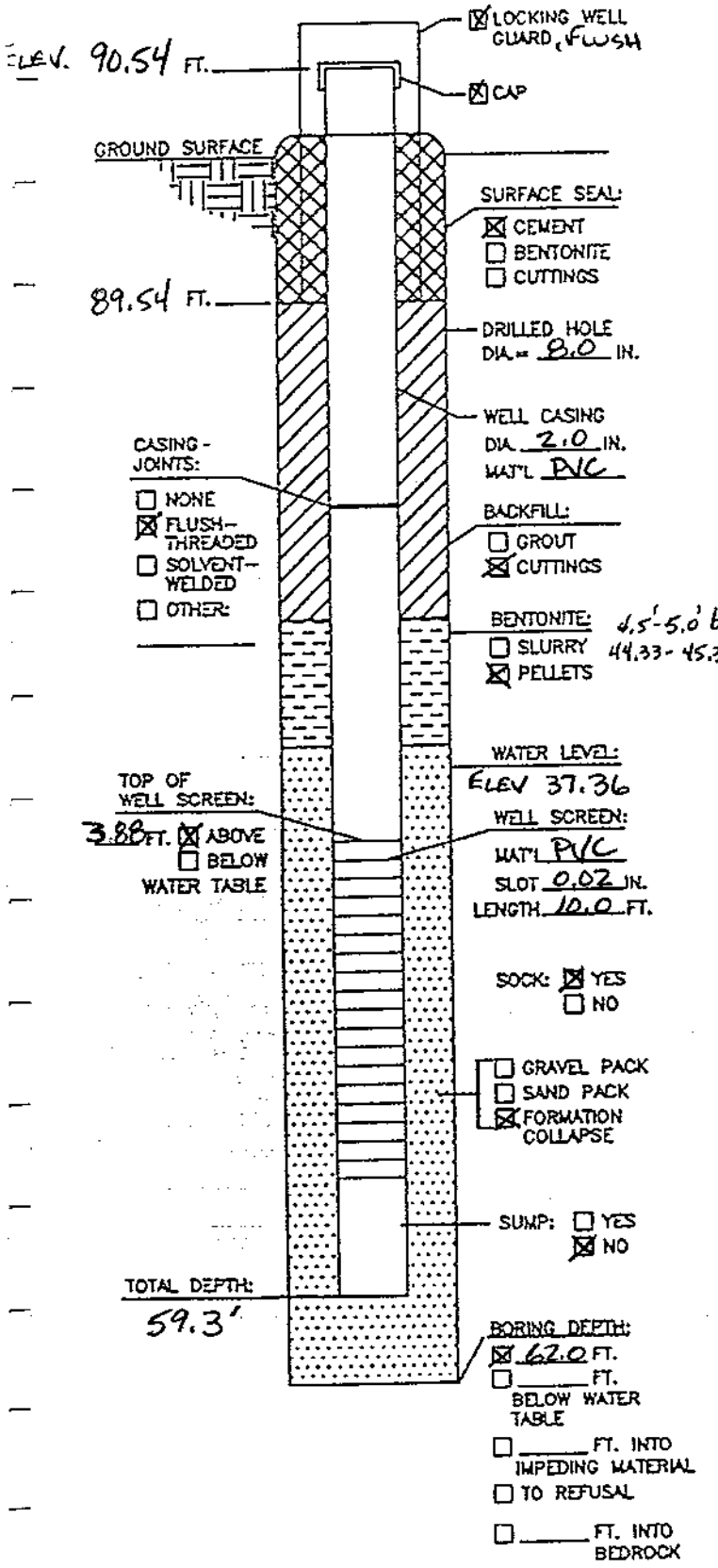
REMARKS UPGRADIENT WELL

PREPARED BY A. MCBEAN

DATE 08-08-96

WELL CONSTRUCTION LOG

WAGNER, HEINDEL, and NOYES, INC.
BURLINGTON, VERMONT



PROJECT AOT - BRATTLEBORO GARAGE

WELL # MW-16

JOB # 95302

TOWN/CITY/STATE BRATTLEBORO, VT

INSTALLATION DATE(S) 07-09-96

DRILLING METHOD HOLLOW STEM AUGER

DRILLING FLUID TYPE _____ VOLUME _____

DRILLING CONTRACTOR AOT

WELL DEVELOPED? ☒ YES ☐ NO

IF YES, THEN VOLUME RECOVERED IS 4.0 GAL

IF YES, BY WHOM? KAD/JW

DATE: 8/1/96

STATIC DEPTH TO WATER 53.18 FT. BELOW TOP OF CASING

☒ MEASURED ☐ ESTIMATED ON DATE: _____

SPLIT-SPOON SAMPLES? ☒ YES ☐ NO

IF YES, THEN INTERVAL IS 5.0 FT. OR ☐ CONTINUOUS

WELL PURPOSE MONITOR GROUNDWATER

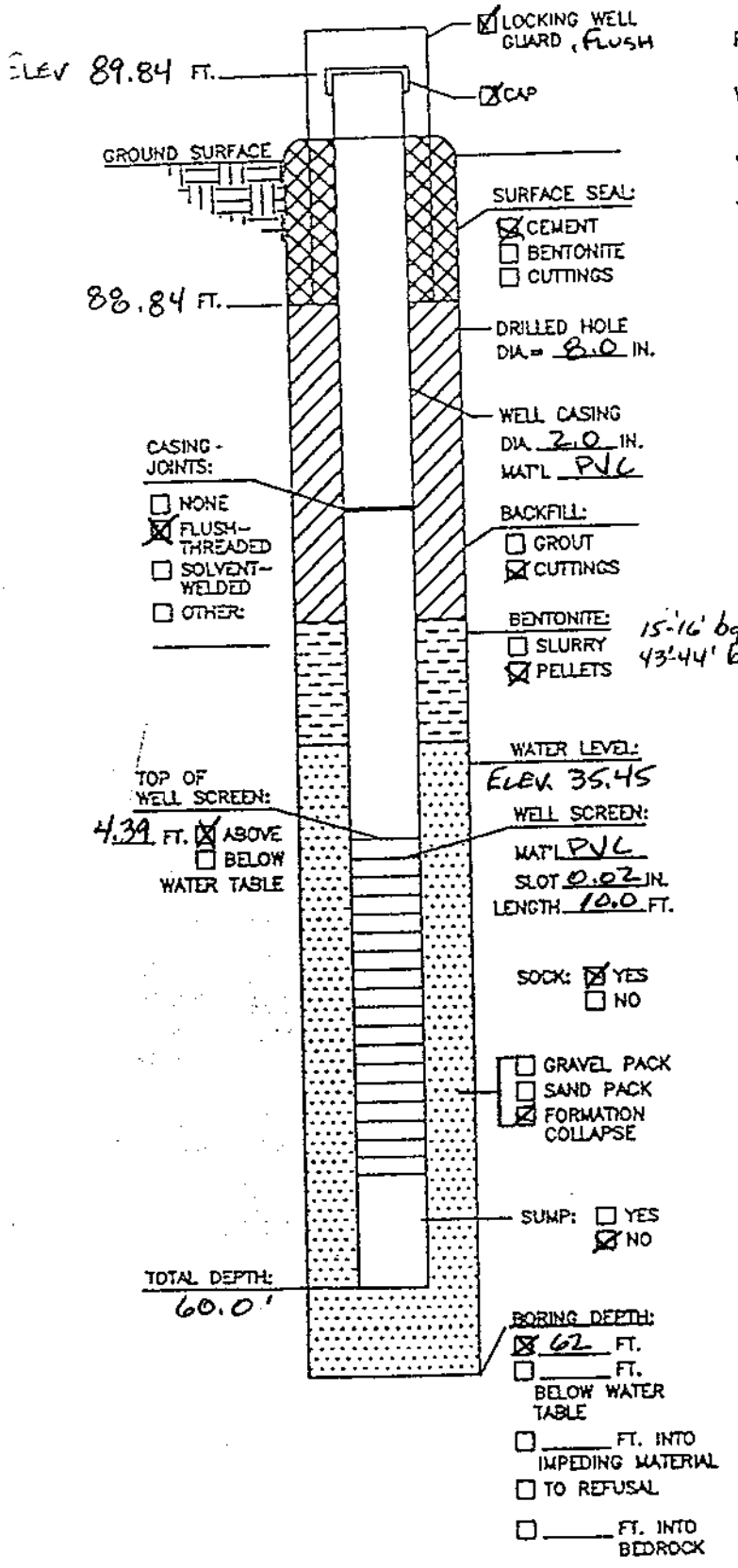
REMARKS _____

PREPARED BY A. MCBEAN

DATE 08-08-96

WELL CONSTRUCTION LOG

WAGNER, HEINDEL, and NOYES, INC.
BURLINGTON, VERMONT



PROJECT AOT - BRATTLEBORO GARAGE

WELL # MW-17

JOB # 95302

TOWN/CITY/STATE BRATTLEBORO, VT

INSTALLATION DATE(S) 07-11-96

DRILLING METHOD HOLLOW STEM AUGER

DRILLING FLUID TYPE _____ VOLUME _____

DRILLING CONTRACTOR AOT

WELL DEVELOPED? ☒ YES ☐ NO

IF YES, THEN VOLUME RECOVERED IS 3.0 AL

IF YES, BY WHOM? KAD/JW

DATE: 8/1/96

STATIC DEPTH TO WATER 54.39 FT. BELOW TOP OF CASING

☒ MEASURED ☐ ESTIMATED ON DATE: _____

SPLIT-SPOON SAMPLES? ☒ YES ☐ NO

IF YES, THEN INTERVAL IS 5.0 FT. O

☐ CONTINUOU

WELL PURPOSE MONITOR GROUNDWATER

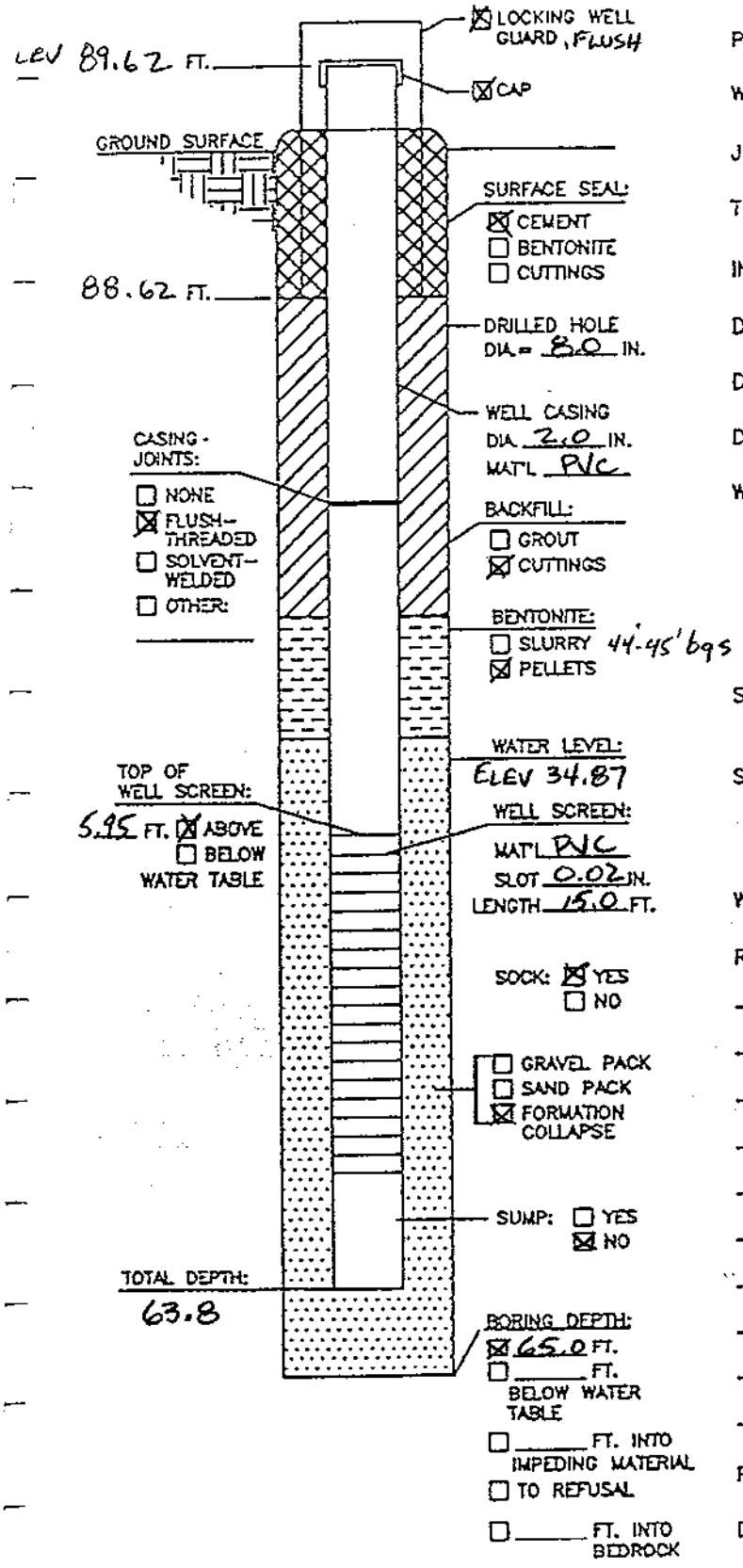
REMARKS _____

PREPARED BY A. McBEAN

DATE 08-08-96

WELL CONSTRUCTION LOG

WAGNER, HEINDEL, and NOYES, INC.
BURLINGTON, VERMONT



PROJECT AOT - BRATTLEBORO GARAGE

WELL # MW-18

JOB # 95302

TOWN/CITY/STATE BRATTLEBORO, VT

INSTALLATION DATE(S) 07-10-96

DRILLING METHOD HOLLOW STEM AUGER

DRILLING FLUID TYPE _____ VOLUME _____

DRILLING CONTRACTOR AOT

WELL DEVELOPED? ☒ YES ☐ NO

IF YES, THEN VOLUME RECOVERED IS 5.0 GAL

IF YES, BY WHOM? KAD/JW

DATE: 8/1/96

STATIC DEPTH TO WATER 54.75 FT. BELOW TOP OF CASING

☒ MEASURED ☐ ESTIMATED ON DATE: _____

SPLIT-SPOON SAMPLES? ☒ YES ☐ NO

IF YES, THEN INTERVAL IS 5.0 FT. OR ☐ CONTINUOUS

WELL PURPOSE MONITOR GROUNDWATER

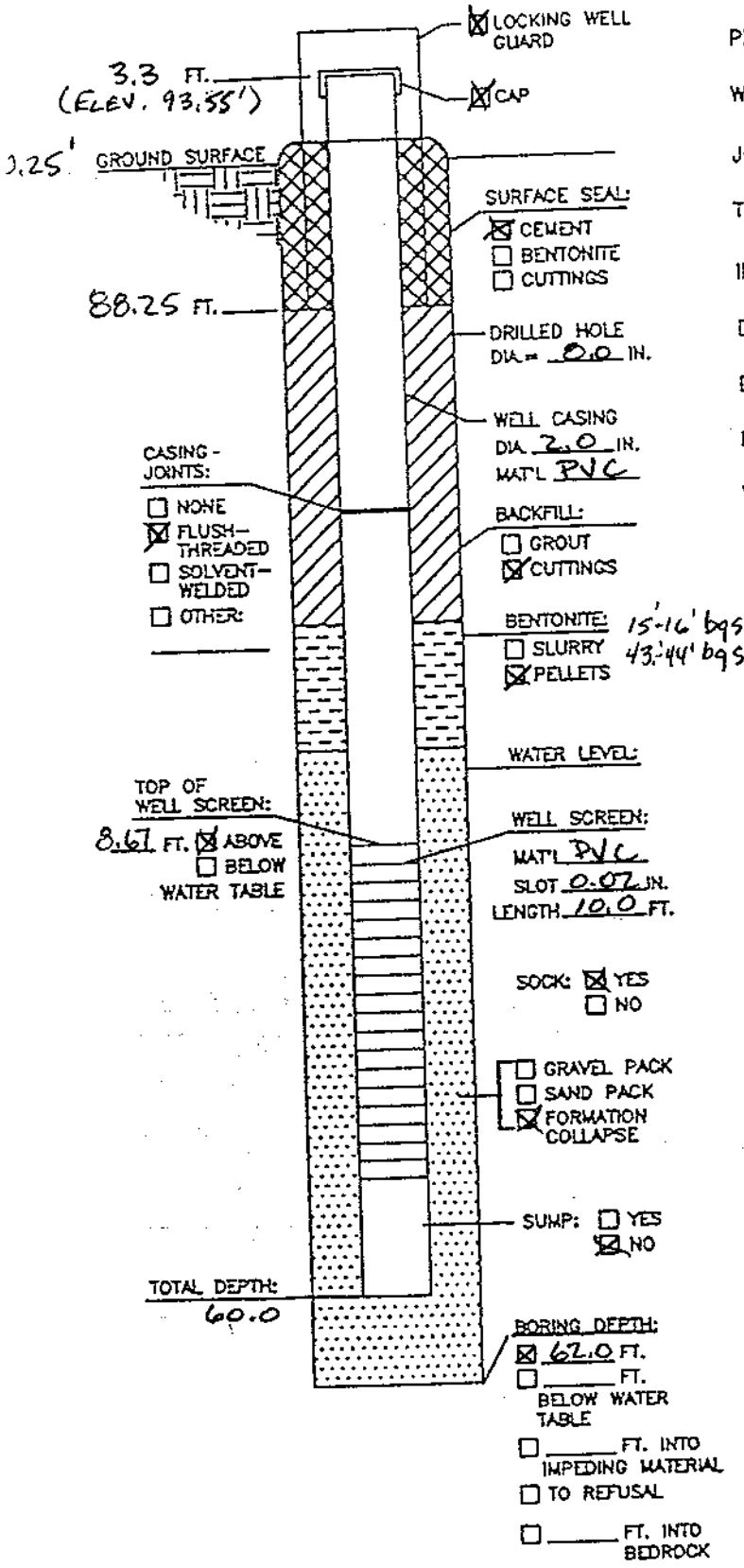
REMARKS _____

PREPARED BY A. McBEAN

DATE 08-08-96

WELL CONSTRUCTION LOG

WAGNER, HEINDEL, and NOYES, INC.
BURLINGTON, VERMONT



PROJECT AOT - BRATTLEBORO GARAGE

WELL # MW-19

JOB # 95302

TOWN/CITY/STATE BRATTLEBORO, VT

INSTALLATION DATE(S) 07-10 & 11-96

DRILLING METHOD HOLLOW STEM AUGER

DRILLING FLUID TYPE _____ VOLUME _____

DRILLING CONTRACTOR AOT

WELL DEVELOPED? ☒ YES ☐ NO

IF YES, THEN VOLUME RECOVERED IS 5.0 GL

IF YES, BY WHOM? KAD/TW

DATE: 8/1/96

STATIC DEPTH TO WATER 58.67 FT. BELOW TOP OF CASING

☒ MEASURED ☐ ESTIMATED ON DATE: _____

SPLIT-SPOON SAMPLES? ☒ YES ☐ NO

IF YES, THEN INTERVAL IS 5.0' FT. C

☐ CONTINUOU

WELL PURPOSE MONITOR GROUNDWATER

REMARKS _____

PREPARED BY A. McBEAN

DATE 08-08-96

SOIL BORING LOG

NELSON, HEINDEL & NOYES P.O. BOX 64709 BURLINGTON, VT 05406-4709	Project: AOT -Brattleboro Garage	Boring Number: MW-15 Sheet 1 of 2 Project Number: 95302

Boring Company: AOT
Foreman: R. Holt
NH&N Staff: Alan McBean

Boring Location:
Ground Elevation:
Date Started: 7/8/96 Date Ended: 7/8/96

Casing
Size: 8" HSA , 3" ID
Hammer:
Fall:

Sampler
Type: 2.0" SS Other:
Hammer: 140 lb.
Fall: 30 "

Groundwater Readings
Date | Depth | Cashin
Stabil.
Time

Sample				Sample Description	Stratra Change & General Description	Field Testing PID	Equipment or Well Installed
No.	Rec.	Depth	Blows				
		0-0.1"		Pavement.			
		0.1-5.0		Moist, light olive brown, fine to medium sand.		0.0	
1	1.1'	5-7	3,5,10,13	Medium dense, moist, light olive brown, fine to medium sand with a little gravel.	Horizontally laminated with oxidized horizons	0.0	
2	1.0	10-12	24,44,48,34	Very dense, moist, dusky yellow gravel.	Gravelly to a depth of 14.0'.	0.1	
3	1.5	15-17	5,5,6,5	Medium dense, moist to wet, light olive gray; interbedded fine sand and silt with trace of gravel.		0.1	
4	1.2	20-22	3,5,9,11	Medium dense, moist to wet, light olive gray, interbedded fine and medium sand with trace of gravel.	Layers are 6-inches thick.	0.1	
5	1.7	25-27	5,6,5,7	Medium dense, moist to wet, light olive gray, varved fine sand and silt.	No gravel found below 25'.	0.1	
6	1.7'	30-32	4,6,9,12	Medium dense, moist, light olive gray, varved silt and very fine sand.		0.2	
7	1.7	35-37	4,10,11,12	Medium dense, moist, light olive gray, varved silt with some sand.	Denser horizon begins at 38.0'	0.1	
8	1.7	40-42	7,17,14,16	Dense, moist, light olive gray, varved silt.	0.5' layer of fine sand at 41.0'.	0.1	
9	1.8	45-47'	7,13,14,17	Medium dense, moist/wet, light olive gray, varved silt and sand.	Wet at 46.0'.	0.0	
10	1.2'	50-52'	9,16,18,24	Dense, wet, light olive gray, fine sand.	Change to more massive bedding (no varves). Soil density also decreases.	0.0	

NELSON, HEINDEL & NOYES P.O. BOX 64709 BURLINGTON, VT 06406-4709				Project: AOT -Brattleboro Garage	Boring Number: MW-15 Sheet 1 of 2 Project Number: 95302		
11	2.0'	55-57	5,9,14,16	Medium dense, wet, light olive gray silt with little sand.		0.0	
12	2.0'	60-62	4,9,12,17	Medium dense, wet, light olive gray sand with a 0.5' thick silt layer at 61.5'. Bottom of hole at 62.0'.		0.0	

Proportions Used

Trace: 0 to 10%
Little: 10 to 20%
Some: 20 to 35%
And: 35 to 50%

Penetration Resistance

140 lb wt falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Stiff
		31+	Hard

Well Construction Legend

Concrete Finish and Grout 8-2' BGS
Backfill
Bentonite to 20' BGS 9-8' BGS
Silica Sand 20'-9'BGS
Bedrock

(U:\AMCBEAN\WPDOCS\AOT.SB1)

SOIL BORING LOG

NELSON, HEINDEL & NOYES P.O. BOX 64709 BURLINGTON, VT 05406-4709	Project: AOT - Brattleboro Garage	Boring Number: MW-16 Sheet 1 of 2 Project Number: 95302

Boring Company: AOT
Foreman: R. Holt
NH&N Staff: Alan McBean

Boring Location:
Ground Elevation:
Date Started:7/9/96 Date Ended: 7/9/96

Casing
Size: 8" HSA, 3" I.D.
Hammer:
Fall:

Sampler
Type: 2.0" O.D, SS
Hammer: 140 lb.
Fall: 30 "

Other:

Groundwater Readings

Date	Depth	Cashin
Stabil. Time		

Sample				Sample Description	Stratra Change & General Description	Field Testing PID	Equipment or Well Installed
No.	Rec.	Depth	Blows				
		0.0-0.1'		Pavement.		0.0	
		0.1-3'		Moist, light olive brown sand with some gravel.		0.0	
		3'-5'		Moist, grayish orange gravel.		0.0	
1	1.3'	3-5	2,2,2,3	Very loose, dry to moist, light olive gray, sand with some silt.		0.0	
2	1.2	5-7	3,2,1,2	Very loose, moist, olive brown sand with some silt.		0.0	
3	1.3	10-12	2,3,3,2	Loose, moist, light olive gray sand and silt		0.0	
4	1.0	15-17	23,37,57,27	Very dense, moist to wet, dusky yellow gravel.	Gravel layer from 14'-17'.	0.0	
5	0.2'	20-22	18,29,34,25	Very dense, light olive brown, wet silt with some sand.	Drove stone ahead of sampler.	0.0	
6	1.3	25-27	5,10,8,9	Medium dense, wet, light olive brown varved sand and silt. Medium sand layer present every 0.4'.	Sand layers oxidized to a dusky yellow.	0.0	
7	1.6	30-32	6,9,10,19	Medium dense, light olive gray, moist, varved sand and silt.	Sand layers thicken to 0.3' from 31'-32'.	0.6	
8	1.3	35-37'	5,10,12,16	Medium dense, light olive gray, moist, varved sand and silt.		0.0	

NELSON, HEINDEL & NOYES P.O. BOX 64709 BURLINGTON, VT 05406-4709				Project: AOT - Brattleboro Garage	Boring Number: MW-16 Sheet 1 of 2 Project Number: 95302		
9	1.3'	40-42	6,10,12,22	Medium dense, light olive gray, wet/moist interbedded sand and silt.	Sand is wet, silt is moist.	0.0	
10	1.6'	45-47	9,14,14,16	Medium dense, moist, light olive gray, interbedded sand and silt (0.3' layers).		0.0	
11	1.3	50-52	11,17,19,18	Dense, moist to wet, light olive gray, varved sand and silt.	Changed from varved to massive bedding at 53.5'	0.1	
12	1.8	55-57	8,14,17,21	Dense, wet, light olive gray, well sorted fine sand, very uniform.		0.0	
13	1.8	60-62	7,11,14,19	Medium dense, wet, light olive gray, well sorted fine sand. Bottom of hole at 62.0'		0.0	

Proportions Used

Trace: 0 to 10%
Little: 10 to 20%
Some: 20 to 35%
And: 35 to 50%

Penetration Resistance

140 lb wt falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Stiff
		31+	Hard

Well Construction Legend

Concrete Finish and Grout 8-2' BGS
Backfill
Bentonite to 20' BGS 9-8' BGS
Silica Sand 20'-9'BGS
Bedrock

(U:\AMCBEAN\WPDOCS\AOT.SB4)

SOIL BORING LOG

NELSON, HEINDEL & NOYES P.O. BOX 64709 BURLINGTON, VT 05406-4709	Project: AOT - Brattleboro Garage	Boring Number: MW-17 Sheet 1 of 2 Project Number: 95302

Boring Company: AOT
Foreman: R. Holt
NH&N Staff: Alan McBean

Boring Location:
Ground Elevation:
Date Started: 7/11/96 Date Ended: 7/11/96

Casing
Size: 8" HSA , 3" ID
Hammer:
Fall:

Sampler
Type: 2.0" OD, SS Other:
Hammer: 140 lb.
Fall: 30 "

Groundwater Readings
Date Depth Cashin
Stabil.
Time

Sample				Sample Description	Stratra Change & General Description	Field Testing PID	Equipment or Well Installed
No.	Rec.	Depth	Blows				
		0.0-0.1'		Pavement.		0.0	
		0.1-3'		Moist, grayish orange sand.	Gravel begins at 3.0'.	0.0	
		3'-5'		Moist, grayish orange gravel.		0.0	
1	1.3'	5-7	20,25,28,29	Very dense, moist, grayish orange gravel.	1-2" stones recovered	0.0	
2	1.5	10-12	4,6,9,10	Medium dense, moist/wet, interbedded silt/sand. Layers are 0.3' thick and horizontally laminated. Soil is olive gray.	Gravel layer ends at 9.0'.	0.0	
3	1.8	15-17	6,5,5,10	Same as 10-12 but layers are 0.7' thick.		0.0	
4	1.7	20-22	5,8,7,8	Medium dense, moist, light olive gray, varved sand and silt with some sand.	Well sorted below 23.5'.	0.0	
5	1.6	25-27	6,8,9,12	Medium dense, moist, light olive gray sand, well sorted fine sand.		0.0	
6	1.6	30-32	8,10,11,14	Same as 25'-27'.		0.0	
7	1.4	35-37	5,8,11,13	Medium dense, moist to wet, light olive gray, varved fine sand and sand with some silt.		0.0	
8	1.6	40-42'	7,12,12,14	Medium dense, moist, light olive gray sand with some silt, very uniform (no layering)		0.0	

NELSON, HEINDEL & NOYES P.O. BOX 64709 BURLINGTON, VT 05406-4709				Project: AOT - Brattleboro Garage	Boring Number: MW-17 Sheet 1 of 2 Project Number: 95302		
9	1.4'	45-47	7,13,14,137	Same as 40'-42'.		0.0	
10	1,3'	50-52	7,12,12,14	Same as 45'-47', but moist to wet.		0.0	
11	1.4	55-57	5,10,15,17	Medium dense, wet, light olive gray sand with laminations highlighted by dark minerals.		0.0	
12	2.0	60-62	4,8,12,13	Medium dense, wet, light olive gray, uniform sand. Bottom of hole at 62.0'.		0.0	

Proportions Used

Trace: 0 to 10%
Little: 10 to 20%
Some: 20 to 35%
And: 35 to 50%

Penetration Resistance

140 lb wt falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Stiff
		31+	Hard

Well Construction Legend

Concrete Finish and Grout 8-2' BGS
Bentonite to 20' BGS 9-8' BGS
Silica Sand 20'-9'BGS
Backfill
Bedrock

(U:\AMCBEAN\WPDOCS\AOT.SB3)

SOIL BORING LOG

NELSON, HEINDEL & NOYES P.O. BOX 64709 BURLINGTON, VT 05406-4709	Project: AOT - Brattleboro Garage	Boring Number: MW-18 Sheet 1 of 2 Project Number: 95302

Boring Company: AOT
Foreman: R. Holt
NH&N Staff: Alan McBean

Boring Location:
Ground Elevation:
Date Started:7/10/96 Date Ended: 7/10/96

Casing	Sampler		Groundwater Readings
Size: 8" HSA, 3" I.D. Hammer: Fall:	Type: 2.0" O.D, SS Hammer: 140 lb. Fall: 30 "	Other:	Date / Depth / Cashin Stabil. Time

Sample				Sample Description	Stratra Change & General Description	Field Testing PID	Equipment or Well Installed
No.	Rec.	Depth	Blows				
		0.0-0.1'		Pavement.		0.0	
		0.1-3'		Moist, yellowish brown sand with some gravel.		0.0	
1	0.6'	3'-5'	4,6,7,6	Medim dense, moist, medium yellowish brown sand with little silt.	Gravel layer begins at 5.0'.	0.2	
2	0.0'	5-7		Pushed stone ahead of sampler.			
3	1.0	7-9	18,21,17,23	Dense, moist, dark yellowish brown gravel with some sand.		0.2	
4	1.5	10-12	13,7,6,5	Same as 7-9 to a depth of 10.4'. Below this is medium dense, moist, mod. olive brown silt with some sand. Uniform texture.	End gravel at 10.4'.	0.2	
5	0.0	15-17		Pushed stone ahead of sampler.			
6	1.6'	17-19	4,5,6,6	Medium dense, moist, mod. olive brown silt with some sand. Uniform layering.		0.0	
7	1.5	20-22	4,7,8,8	Medium dense, moist to wet, mod. olive brown silt and sand. Varved layer deposition highlighted by organic rich horizons.		0.0	
8	1.5	25-27	5,7,14,11	Medium dense, moist, mod. olive brown layered sand and silt. Coarser grained layers contain more moisture.		0.2	
9	1.6	30-32'	7,11,12,16	Medium dense, moist, light olive gray, uniform sand.		0.2	

NELSON, HEINDEL & NOYES P.O. BOX 64709 BURLINGTON, VT 05406-4709				Project: AOT - Brattleboro Garage	Boring Number: MW-18 Sheet 1 of 2 Project Number: 95302		
10	1.7'	36-37	9,12,15,24	Same as 30-32 to a depth of 36'. Below this is varved, medium olive brown silt and light olive brown sand.	Cycles are 0.2' thick.	0.0	
11	1.5'	40-42	12,17,16,18	Dense, moist, light olive gray, varved sand and silt.	Cycles highlighted by oxidized laminations.	0.0	
12	1.7	45-47	9,14,13,15	Medium dense, moist, light olive gray, uniform sand.		0.0	
13	1.4	50-52	9,14,15,16	Medium dense, moist, light olive gray, laminated sand with thin silt horizons.		0.0	
14	1.8	55-57	4,8,7,13	Medium dense, wet, grayish olive sand with 0.1' thick horizons of silt.		0.0	
15	1.8	60-62	5,8,11,14	Medium dense, wet, grayish olive sand with horizons of varved sand and silt. Bottom of hole at 65.0'.		0.0	

Proportions Used
Trace: 0 to 10%
Little: 10 to 20%
Some: 20 to 35%
And: 35 to 50%

Penetration Resistance
140 lb wt falling 30" on 2" O.D. Sampler

Cohesioniess Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Stiff
		31+	Hard

Well Construction Legend

Concrete Finish and Grout 8-2' BGS
Backfill
Bentonite to 20' BGS 9-8' BGS
Silica Sand 20'-9'BGS
Bedrock

(U:\AMCBEAN\WPDOCS\AOT.SB5)

SOIL BORING LOG

NELSON, HEINDEL & NOYES P.O. BOX 64709 BURLINGTON, VT 05406-4709	Project: AOT - Brattleboro Garage	Boring Number: MW-19 Sheet 1 of 2 Project Number: 95302

Boring Company: AOT
Foreman: R. Holt
NH&N Staff: Alan McBean

Boring Location:
Ground Elevation:
Date Started: 710/96 Date Ended: 7/10/96

Casing
Size: 8" HSA , 3" ID
Hammer:
Fall:

Sampler
Type: 2.0" OD, SS Other:
Hammer: 140 lb.
Fall: 30 "

Groundwater Readings

Date Time	Depth	Cashin	Stabil.

Sample				Sample Description	Stratra Change & General Description	Field Testing PID	Equipment or Well Installed
No.	Rec.	Depth	Blows				
		0-2		Moist, yellowish brown, sandy loam		0.0	
1	1.7'	2-4	2,3,3,4	Loose, moist, light olive brown, uniform sand.	0.1' gravel layer at 3.5'.	0.0	
2	1.3	5-7	5,15,15,17	Same as 2-4 to 5.5'; then dense, moist, dusky yellow sand and gravel.	Gravel begins at 5.5 and ends at 9.0.	0.0	
3	1.5	10-12	4,7,7,7	Medium dense, moist, dusky yellow sand and silt.		0.0	
4	1.7	15-17	5,7,8,10	Medium dense, moist, light olive gray silt with some sand, very uniform.		0.0	
5	1.3	20-22	4,7,9,11	Medium dense, moist/wet, silt with some sand interbedded with sand horizons. Sand is saturated.			
6	1.3	25-27	4,6,9,11	Medium dense, moist to wet, light olive gray, varved sand and silt.		0.0	
7	1.7	30-32	7,9,11,10	Medium dense, moist, light olive gray sand with 0.1' silt laminations every 1.0' of recovery.		0.0	
8	1.7	35-37	5,11,11,12	Medium dense, moist, light olive gray, uniform sand.		0.0	
9	1.8	40-42	7,12,14,13	Same as 35-37'; but sample has some silt.		0.0	
10	1.6	45-47'	8,12,17,17	Same as 40-42.		0.0	

NELSON, HEINDEL & NOYES P.O. BOX 64709 BURLINGTON, VT 05406-4709				Project: AOT - Brattleboro Garage	Boring Number: MW-19 Sheet 1 of 2 Project Number: 95302		
11	1.6'	50-52	10,15,16,17	Same as 45-47 but thinly laminated and dense.		0.0	
12	1.5'	55-57	6,12,11,15	Same as 50-52; but wet and medium dense.		0.0	
13	1.8	60-62	3,6,10,11	Same as 55-57. Bottom of hole at 62.0'.			

Proportions Used

Trace: 0 to 10%
Little: 10 to 20%
Some: 20 to 35%
And: 35 to 50%

Penetration Resistance

140 lb wt falling 20" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Stiff
		31+	Hard

Well Construction Legend

Concrete Finish and Grout 8-2' BGS	Bentonite to 20' BGS 9-8' BGS Silica Sand 20'-9'BGS
Backfill	Bedrock

(U:\AMCBEAN\WPDOCS\AOT.SB2)

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
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(802) 879-4333
FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996

PROJECT CODE: HNAO1621
REF. #: 92,071 - 92,080

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody.

Chain of custody indicated sample preservation with Sodium Azide.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method.

Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within Laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

ENDYNE, INC.

Laboratory Services

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LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996
DATE RECEIVED: August 2, 1996
ANALYSIS DATE: August 5, 1996

PROJECT CODE: HNAO1621
REF.#: 92,071
STATION: MW-7
TIME SAMPLED: 3:50
SAMPLER: K.A.D./J.W.

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon Tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
2&4-Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-Chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

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REF.#: 92,071

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	TBQ[2]
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
cis-1,3-Dichloropropene	2	ND
trans-1,3-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	5	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene Chloride	10	ND
Naphthalene	10	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	ND

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REF.#: 92,071

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Toluene	2	ND
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	30.7
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl Chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 104.%
Toluene-d8 : 112.%
4-Bromofluorobenzene : 113.%

NOTES:

1 None detected
2 Trace below quantitation limit

ENDYNE, INC.

Laboratory Services

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LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996
DATE RECEIVED: August 2, 1996
ANALYSIS DATE: August 5, 1996

PROJECT CODE: HNAO1621
REF.#: 92,072
STATION: MW-11
TIME SAMPLED: 4:15
SAMPLER: K.A.D./J.W.

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon Tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
2&4-Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-Chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

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REF.#: 92,072

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	TBQ[2]
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
cis-1,3-Dichloropropene	2	ND
trans-1,3-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	5	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene Chloride	10	ND
Naphthalene	10	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	8.3

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REF.#: 92,072

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Toluene	2	ND
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	8.5
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl Chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 101.%
Toluene-d8 : 99.%
4-Bromofluorobenzene : 114.%

NOTES:

1 None detected
2 Trace below quantitation limit

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996
DATE RECEIVED: August 2, 1996
ANALYSIS DATE: August 5, 1996

PROJECT CODE: HNAO1621
REF.#: 92,073
STATION: MW-15
TIME SAMPLED: 3:20
SAMPLER: K.A.D./J.W.

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon Tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
2&4-Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-Chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

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REF.#: 92,073

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	ND
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
cis-1,3-Dichloropropene	2	ND
trans-1,3-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	5	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene Chloride	10	ND
Naphthalene	10	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	ND

ENDYNE, INC.

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REF.#: 92,073

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Toluene	2	ND
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	ND
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl Chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 104.%
Toluene-d8 : 97.%
4-Bromofluorobenzene : 112.%

NOTES:

1 None detected

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
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LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996
DATE RECEIVED: August 2, 1996
ANALYSIS DATE: August 6, 1996

PROJECT CODE: HNAO1621
REF.#: 92,074
STATION: MW-16
TIME SAMPLED: 3:40
SAMPLER: K.A.D./J.W.

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon Tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
2&4-Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-Chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
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(802) 879-4333
FAX 879-7103

REF.#: 92,074

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	2.1
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
cis-1,3-Dichloropropene	2	ND
trans-1,3-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	5	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene Chloride	10	ND
Naphthalene	10	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	11.7

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Laboratory Services

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REF.#: 92,074

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Toluene	2	ND
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	26.6
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl Chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 103.%
Toluene-d8 : 102.%
4-Bromofluorobenzene : 113.%

NOTES:

1 None detected

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996
DATE RECEIVED: August 2, 1996
ANALYSIS DATE: August 6, 1996

PROJECT CODE: HNAO1621
REF.#: 92,075
STATION: MW-17
TIME SAMPLED: 2:50
SAMPLER: K.A.D./J.W.

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon Tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
2&4-Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-Chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

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REF.#: 92,075

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	4.3
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
cis-1,3-Dichloropropene	2	ND
trans-1,3-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	5	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene Chloride	10	ND
Naphthalene	10	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	23.0

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REF.#: 92,075

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Toluene	2	ND
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	45.4
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl Chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 105.%
Toluene-d8 : 98.%
4-Bromofluorobenzene : 117.%

NOTES:

1 None detected

ENDYNE, INC.

Laboratory Services

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LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996
DATE RECEIVED: August 2, 1996
ANALYSIS DATE: August 6, 1996

PROJECT CODE: HNAO1621
REF.#: 92,076
STATION: MW-18
TIME SAMPLED: 2:45
SAMPLER: K.A.D./J.W.

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon Tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
2&4-Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-Chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

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REF.#: 92,076

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	ND
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
cis-1,3-Dichloropropene	2	ND
trans-1,3-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	5	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene Chloride	10	ND
Naphthalene	10	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	3.7

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REF.#: 92,076

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Toluene	2	ND
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	5.0
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl Chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 103.%
Toluene-d8 : 101.%
4-Bromofluorobenzene : 113.%

NOTES:

1 None detected

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
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LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996
DATE RECEIVED: August 2, 1996
ANALYSIS DATE: August 6, 1996

PROJECT CODE: HNAO1621
REF.#: 92,077
STATION: MW-19
TIME SAMPLED: 2:20
SAMPLER: K.A.D./J.W.

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon Tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	TBQ[2]
Chloromethane	10	ND
2&4-Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-Chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

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REF.#: 92,077

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	TBQ
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
cis-1,3-Dichloropropene	2	ND
trans-1,3-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	5	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene Chloride	10	ND
Naphthalene	10	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	8.2

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REF.#: 92,077

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Toluene	2	ND
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	7.5
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl Chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 109.%
Toluene-d8 : 101.%
4-Bromofluorobenzene : 110.%

NOTES:

1 None detected
2 Trace below quantitation limit

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
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LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996
DATE RECEIVED: August 2, 1996
ANALYSIS DATE: August 6, 1996

PROJECT CODE: HNAO1621
REF.#: 92,078
STATION: MW-20
TIME SAMPLED: 1:30
SAMPLER: K.A.D./J.W.

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon Tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
2&4-Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-Chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

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REF.#: 92,078

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	ND
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
cis-1,3-Dichloropropene	2	ND
trans-1,3-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	5	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene Chloride	10	ND
Naphthalene	10	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	ND

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF.#: 92,078

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Toluene	2	ND
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	ND
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl Chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 108.%
Toluene-d8 : 99.%
4-Bromofluorobenzene : 116.%

NOTES:

1 None detected

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
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FAX 879-7103

LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996
DATE RECEIVED: August 2, 1996
ANALYSIS DATE: August 6, 1996

PROJECT CODE: HNAO1621
REF.#: 92,079
STATION: MW-21
TIME SAMPLED: 1:45
SAMPLER: K.A.D./J.W.

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon Tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
2&4-Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-Chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
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REF.#: 92,079

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	ND
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
cis-1,3-Dichloropropene	2	ND
trans-1,3-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	5	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene Chloride	10	ND
Naphthalene	10	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	ND

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
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(802) 879-4333
FAX 879-7103

REF.#: 92,079

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Toluene	2	ND
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	ND
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl Chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 107.%
Toluene-d8 : 100.%
4-Bromofluorobenzene : 116.%

NOTES:

1 None detected

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996
DATE RECEIVED: August 2, 1996
ANALYSIS DATE: August 6, 1996

PROJECT CODE: HNAO1621
REF.#: 92,080
STATION: Trip Blank
TIME SAMPLED: 7:30
SAMPLER: K.A.D./J.W.

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon Tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
2&4-Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-Chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
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(802) 879-4333
FAX 879-7103

REF.#: 92,080

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	ND
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
cis-1,3-Dichloropropene	2	ND
trans-1,3-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	5	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene Chloride	10	ND
Naphthalene	10	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	ND

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF.#: 92,080

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Toluene	2	ND
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	ND
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl Chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 102.%
Toluene-d8 : 99.%
4-Bromofluorobenzene : 117.%

NOTES:

1 None detected

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8260 WATER MATRIX

MATRIX SPIKE AND DUPLICATE LABORATORY CONTROL DATA

CLIENT: Nelson, Heindel, and Noyes, Inc.
PROJECT NAME: AOT/Brattleboro Garage
REPORT DATE: August 6, 1996
DATE SAMPLED: August 1, 1996
DATE RECEIVED: August 2, 1996
ANALYSIS DATE: August 5, 1996

PROJECT CODE: HNAO1621
REF.#: 92,072
STATION: MW-11
TIME SAMPLED: 4:15
SAMPLER: K.A.D./J.W.

Parameter	Sample (ug/L)	Spike (ug/L)	Dup 1 (ug/L)	Dup 2 (ug/L)	Average % Recovery
1,1-Dichloroethene	TBQ[1]	50.0	46.5	45.9	92.%
Benzene	ND[2]	50.0	52.3	51.5	104.%
Trichloroethene	ND	50.0	51.2	51.9	103.%
Toluene	ND	50.0	48.7	48.6	97.%
Chlorobenzene	ND	50.0	56.0	55.9	112.%

NOTES:

1 Trace below quantitation limit

2 None detected

ENDYNE, INC.

32 James Brown Drive
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(802) 879-4333

19755

CHAIN-OF-CUSTODY RECORD

Project Name: AOT/BRATTLEBORO GARAGE Site Location: LACROIX PROPERTY BRATTLEBORO, VT	Reporting Address: NH&N	Billing Address: NH&N
Endyne Project Number: HNA01621	Company: JEN Contact Name/Phone #: NH&N	Sampler Name: KAD/JW Phone #: NH&N 658-0820

Lab #	Sample Location	Matrix	GRAB	COMP	Date/Time 8/1/96	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
92,071	MW-7	H_2O	✓		3:50	2	40mL g		8260	NaN_3	
92,072	MW-11				4:15						
92,073	MW-15				3:20						
92,074	MW-16				3:40						
92,075	MW-17				2:50						
92,076	MW-18				2:45						
92,077	MW-19				2:20						
92,078	MW-20				1:30						
92,079	MW-21				1:45						
92,080	Trip Blank	↓	↓		7:30a	↓	↓		↓	↓	

Relinquished by: Signature Kristin DiPietro	Received by: Signature Lana M. Chambers	Date/Time 8/2/96 9:35 am
Relinquished by: Signature	Received by: Signature	Date/Time

New York State Project: Yes ____ No ____

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD_5	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										